

REMARKS

Claims 8-11 are pending. By this Amendment, claims 1-7 are canceled.

The Office Action rejects claims 1 and 3-7 under 35 U.S.C. §102(b) over U.S. Patent No. 4,322,665 to Landgraf in view of U.S. Patent No. 3,942,055 to Hoffmeyer; and rejects claims 8-11 under 35 U.S.C. §103 (a) over Landgraf in view of U.S. Patent No. 5,796,190 to Takeda et al. These rejections are respectfully traversed.

Applicants' independent claim 8 recites, in combination with other claimed features, a slot between each of a plurality of stator teeth, a plurality of evenly spaced semicircular notches having an approximately same width as the stator teeth and each provided at an outer side of each of the plurality of stator teeth on an outer circumference of the stator iron core. The number of semicircular notches corresponds to the number of stator teeth. Such a feature encompasses Applicants' exemplary embodiment as illustrated in Fig. 9 wherein the number of notches 2 corresponds to the number of stator teeth 12.

In Takeda, the bolt holes 111c and recessed welded portions 111e formed on the circumference, as shown in Fig. 3a, do not correspond to the number of stator teeth. In paragraph 7 of the Office Action, the Examiner recognizes that Takeda does not teach the number of semicircular notches correspond to the number of stator teeth. The Examiner alleges it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Landgraf to provide the feature of the number of semicircular notches corresponding to the number of stator teeth. In paragraph 8 of the Office Action, the Examiner states that it would have been obvious to provide a number of semicircular notches corresponding to the number of stator teeth since it has been held that discovering

an optimum value or a result effective variable involves only routine skill in the art. The motivation to do so would be that it would allow easier assembly and accurate mounting of the device. See also paragraph 15 of the Office Action.

However, the bolt holes 111c are used with bolts 102 to fix the stator core 111 to the housing 101. The recessed welded portions 111e are provided so that the respective sheet core blocks can be fixed to one another at eight places. A provision of bolt holes 111c and/or recessed welded portions 111e to correspond to the number of stator teeth appears to be unreasonable since only a specific number of bolt holes 111c or recess welded portions 111e would be necessary to perform the respective functions. In fact, it seems unnecessary to provide a bolt hole 111c or a recessed welded portion 111e to correspond to the number of stator teeth. Thus, the ordinarily skilled artisan would not have been motivated to provide a number of semicircular notches corresponding to the number of stator teeth of the Landgraf reference. As discussed in Applicants' as-filed specification at paragraph [0039] when the stator is mounted on a hermetic compressor, the notches are used as passages for a refrigerant or oil. In order to secure performance and reliability it is necessary to form the notches to have a total area more than a certain level. Applicants' independent claim 8 is distinguishable over the Landgraf and Takeda references.

The magnetic flux density of the coreback is high at the outer circumferential side of the slot, and the width of coreback is large at the outer side of the teeth. Because the width is large, the magnetic flux density does not become high. Specifically, the magnetic flux density is not saturated even if the roughly semicircular notches are provided, and it is possible to reduce or prevent the increase of electric

current which flows through the windings. Namely, the increase of the magnetic flux density can be reduced or prevented and the efficiency can be enhanced.

The dependent claims are allowable for at least the reasons discussed above as well as for the individual features they recite.

Early and favorable action with respect to this application is respectfully requested.

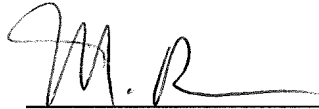
Should the Examiner have any questions regarding this Amendment of the application in general, he is invited to contact the undersigned at the number provided below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

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By:



Michael Britton
Registration No. 47260

Customer No. 21839
703 836 6620